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see page 6

OIPE

RAW SEQUENCE LISTING   DATE: 05/22/2002
PATENT APPLICATION: US/09/894,912A   TIME: 11:29:05

Input Set : A:\37260ARevseq.txt
Output Set: N:\CRF3\05222002\I894912A.raw

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   5 <110> APPLICANT: Tang et al.
   8 <120> TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL STEM CELL GROWTH
   9       FACTOR-LIKE POLYPEPTIDES AND POLYNUCLEOTIDES
  12 <130> FILE REFERENCE: 28110/37260A
C-->14 <140> CURRENT APPLICATION NUMBER: US/09/894,912A
C-->15 <141> CURRENT FILING DATE: 2002-05-10
  17 <150> PRIOR APPLICATION NUMBER: To be assigned
  18 <151> PRIOR FILING DATE: 2001-04-05
  20 <150> PRIOR APPLICATION NUMBER: 60/266,614
  21 <151> PRIOR FILING DATE: 2001-02-05
  23 <150> PRIOR APPLICATION NUMBER: 60/215,733
  24 <151> PRIOR FILING DATE: 2000-06-28
  26 <150> PRIOR APPLICATION NUMBER: 09/757,562
  27 <151> PRIOR FILING DATE: 2001-01-09
  29 <150> PRIOR APPLICATION NUMBER: 09/543,774
  30 <151> PRIOR FILING DATE: 2000-04-05
  33 <160> NUMBER OF SEQ ID NOS: 48
  35 <170> SOFTWARE: PatentIn version 3.0
  39 <210> SEQ ID NO: 1
  40 <211> LENGTH: 301
  41 <212> TYPE: DNA
  42 <213> ORGANISM: Homo sapiens
  44 <400> SEQUENCE: 1
  45 gcacgagacg aggaaaaaaa ggaagggaga ggaaaagaaa aaaacctaat aaaggagaaa      60
  47 gtaaagaagc aatacctgac agcaaaagtc tggaatccag caaagaaatc ccagagcaac     120
  49 gagaaaacaa acagcagcag aagaagcgaa aagtccaaga taaacagaaa tcggtatcag     180
  51 tcagcactgt acactagagg gttccatgag attattgtag actcatgatg ctgctatctc     240
  53 aaccagatgc ccaggacagg tgctctagcc attaggacca caaatggaca tgtcagttat     300
  55 t                                                                     301
  58 <210> SEQ ID NO: 2
  59 <211> LENGTH: 392
  60 <212> TYPE: DNA
  61 <213> ORGANISM: Homo sapiens
  63 <400> SEQUENCE: 2
  64 tggaactcga tatccagata taaataagcg tacaaaatgc aaagctgact gtgatacctg      60
  66 tttcaacaaa gatttctgca caaaatgtaa aagtggattt tacttacacc ttggaaagtg     120
  68 ccttgacaat tgcccagaag ggttggaagc caacaaccat actatggagt gtgtcagtat     180
  70 tgtgcactgt gaggtcagtg aatggaatcc ttggagtcca tgcacgaaga agggaaaaac     240
  72 atgtggcttc aaaagaggga ctgaaacacg ggtccgagaa ataatacagc atccttcagc     300
  74 aaagggtaac ctatgtcccc caacaaatga gacaagaaag tgtacagtgc aaaggaagaa     360
  76 gtgtcagaag ggagaacgag gaaaataagg ag                                   392
  79 <210> SEQ ID NO: 3
  80 <211> LENGTH: 475
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RAW SEQUENCE LISTING   DATE: 05/22/2002
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       81 <212> TYPE: DNA
       82 <213> ORGANISM: Homo sapiens
       84 <220> FEATURE:
       85 <221> NAME/KEY: misc_feature
       87 <222> LOCATION: (1)..(475)
       88 <223> OTHER INFORMATION: n = A, T, G, or C
       91 <400> SEQUENCE: 3
W--> 92 gtnagtaccc ccagggattt cactgagngc ctggactgag gacccgtcna anngcnngan      60
W--> 94 ccacgcgtnc gcccacgcgt ccggagagga aaagaaaaaa acctaattta ggagaaagta     120
       96 aagaagcaat acctgacagc ggaagtctgg aatggagcaa agaaatccca gagcaacgag     180
       98 aaaacaaaca gcagcagaag aagcgaaaag tccaagataa acagaaatcg gtatcagtca     240
      100 gcactgtaca ctagagggtt ccatgagatt attgtagact catgatgctg ctatctcaac     300
      102 cagatgccca ggacaggtgc tctagccatt aggaccacaa atggacatgt cagttattgc     360
      104 tctgtctaaa caacattccc agtagttgct atattcttca tacaagcata gttaacaaca     420
W--> 106 aagagccaaa agatcaaaga agggatactt tcagatggtt gtcttgtgtg cttcn          475
      109 <210> SEQ ID NO: 4
      110 <211> LENGTH: 473
      111 <212> TYPE: DNA
      112 <213> ORGANISM: Homo sapiens
      114 <220> FEATURE:
      115 <221> NAME/KEY: misc_feature
      117 <222> LOCATION: (1)..(473)
      118 <223> OTHER INFORMATION: n = A, T, G, or C
      121 <400> SEQUENCE: 4
W--> 122 tgggcannnn aaanttttga nattcgatcc gcgctgcagg aattcggcac gagacgagga      60
      124 aaaaaaggaa gggagaggaa aagaaaaaaa cctaataaag gagaaagtaa agaagcaata     120
      126 cctgacagca aaagtctgga atccagcaga gaaatcccag agcaacgaga aaacaaacag     180
      128 cagcagaaga agcgaaaagt ccaagataaa cagaaatcgg tatcagtcag cactgtacac     240
      130 tagagggttc catgagatta ttgtagactc atgatgctgc tatctcaacc agatgcccag     300
      132 gacaggtgct ctagccatta ggaccacaaa tggacatgtc agttattgct ctgtctaaac     360
      134 aacattccca gtagttgcta tattcttcat acaagcatag ttaacaacaa agagccaaaa     420
      136 gatcaaagaa gggatacttt cagatggttg tcttgtgtgc ttctctgcat ttt           473
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      140 <211> LENGTH: 462
      141 <212> TYPE: DNA
      142 <213> ORGANISM: Homo sapiens
      145 <220> FEATURE:
      146 <221> NAME/KEY: misc_feature
      148 <222> LOCATION: (1)..(462)
      149 <223> OTHER INFORMATION: n = A, T, G, or C
      152 <400> SEQUENCE: 5
W--> 153 tgggagannn ntttgaaact gagatcgtcg canacncnac nangaataaa aggaagggag      60
      155 aggaaagaa aaaaacctaa taaaggagaa agtaaagaat caatttctga cagcaaaagt     120
      157 ctggaatcca tcaaagaaat cccatatcaa cgagaaaaca gacagcagca caaaaagcga     180
      159 aaagtccaag ataaacagaa atcggtatca gtcagcactg tacactagag ggttccatga     240
      161 gattattgta gactcatgat gctgctatct caaccagatg cccaggacag gtgctctatc     300
      163 cattacgacc acaaatggac atgtcagtta ttgctctgtc taaacaacat cccagtagt     360
      165 tgctatattc ttcatacaag catagttaac aacaaagagc caaagatca aagaagggat     420
      167 actttcagat ggttgtcttg tgtgcttctc tgcattttta aa                       462
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            Input Set : A:\37260ARevseq.txt
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    170 <210> SEQ ID NO: 6
    171 <211> LENGTH: 384
    172 <212> TYPE: DNA
    173 <213> ORGANISM: Homo sapiens
    176 <400> SEQUENCE: 6
    177 aataatgtgt acaaaatgca aagctgactg tgatacctgt ttcaacaaaa atttctgcac      60
    179 aaaatgtaaa agtggatttt acttacacct tggaaagtgc cttgacaatt gcccagaagg     120
    181 gttggaagcc aacaaccata ctatggagtg tgtcagtatt gtgcactgtg aggtcagtga     180
    183 atggaatcct tggagtccat gcacgaagaa gggaaaaaca tgtggcttca aaagagggac     240
    185 tgaaacacgg gtccgagaaa taatacagca tccttcagca aagggtaacc tatgtccccc     300
    187 aacaaatgag acaagaaagt gtacagtgca aaggaagaag tgtcagaagg gagaacgagg     360
    189 aaaaaaagga agggagagga aaag                                            384
    192 <210> SEQ ID NO: 7
    193 <211> LENGTH: 390
    194 <212> TYPE: DNA
    195 <213> ORGANISM: Homo sapiens
    197 <220> FEATURE:
    198 <221> NAME/KEY: misc_feature
    200 <222> LOCATION: (1)..(390)
    201 <223> OTHER INFORMATION: n = A, T, G, or C
    204 <400> SEQUENCE: 7
    205 cgttgctctg ggatttcttt gctggattcc agacttttgc tgtcaggtat tgcttcttta      60
    207 ctttctcctt tattaggttt ttttctttc ctctcccttc ctttttttcc tcgttctccc     120
    209 ttctgacact tcttcctttg cactgtacac tttcttgtct catttgttgg gggacatagg     180
    211 ttaccctttg ctgaaggatg ctgtattatt tctcggaccc gtgtttcagt ccctcttttg     240
    213 aagccacatg tttttccctt cttcgtgcat ggactccaag gattccattc actgacctca     300
    215 cagtgcacaa tactgacaca ctccatagta tggttgttgg cttccaaccc ttctgggcaa     360
W--> 217 ttgtcaaggc actttccaag gtgtaagtan                                     390
    220 <210> SEQ ID NO: 8
    221 <211> LENGTH: 1345
    222 <212> TYPE: DNA
    223 <213> ORGANISM: Homo sapiens
    225 <220> FEATURE:
    226 <221> NAME/KEY: misc_feature
    228 <222> LOCATION: (321)..(1235)
    229 <223> OTHER INFORMATION: similar to gi4519541 in the genpept database release 114,
Run wit
    230      h FASTXY3.3t00, default parameter
    233 <400> SEQUENCE: 8
    234 gcggccgccc cggcggctcc tggaaccccg gttcgcggcg atgccagcca ccccagcgaa      60
    236 gccgccgcag ttcagtgctt ggataatttg aaagtacaat agttggtttc cctgtccacc     120
    238 cgccccactt cgcttgccat cacagcacgc ctatcggatg tgagaggaga agtcccgctg     180
    240 ctcgggcact gtctatatac gcctaacacc tacatatatt ttaaaaacat taaatataat     240
    242 taacaatcaa aagaaagagg agaaaggaag ggaagcatta ctgggttact atgcacttgc     300
    244 gactgatttc ttggcttttt atcattttga actttatgga atacatcggc agccaaaacg     360
    246 cctcccgggg aaggcgccag cgaagaatgc atcctaacgt tagtcaaggc tgccaggag     420
    248 gctgtgcaac atgctcagat tacaatggat gtttgtcatg taagcccaga ctattttttg     480
    250 ctctggaaag aattggcatg aagcagattg gagtatgtct catcttcatg tccaagtgga     540
    252 tattatggaa ctcgatatcc agatataaat aatgtgtaca aaatgcaaag ctgactgtga     600
    254 tacctgtttc aacaaaaatt tctgcacaaa atgtaaaagt ggattttact tacaccttgg     660
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256 aaagtgcctt gacaattgcc cagaagggtt ggaagccaac aaccatacta tggagtgtgt   720
258 cagtattgtg cactgtgagg tcagtgaatg gaatccttgg agtccatgca cgaagaaggg   780
260 aaaaacatgt ggcttcaaaa gagggactga aacacgggtc cgagaaataa tacagcatcc   840
262 ttcagcaaag ggtaacctat gtcccccaac aaatgagaca agaaagtgta cagtgcaaag   900
264 gaagaagtgt cagaagggag aacgaggaaa aaaaggaagg gagaggaaaa gaaaaaaacc   960
266 taataaagga gaaagtaaag aagcaatacc tgacagcaaa agtctggaat ccagcaaaga  1020
268 aatcccagag caacgagaaa acaaacagca gcagaagaag cgaaaagtcc aagataaaca  1080
270 gaaatcggta tcagtcagca ctgtacacta gagggttcca tgagattatt gtagactcat  1140
272 gatgctgcta tctcaaccag atgcccagga caggtgctct agccattagg accacaaatg  1200
274 gacatgtcag ttattgctct gtctaaacaa cattcccagt agttgctata ttcttcatac  1260
276 aagcatagtt aacaacaaag agccaaaaga tcaaagaagg gatactttca gatggttgtc  1320
278 ttgtgtgctt ctctgcattt ttaaa                                        1345
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281 <210> SEQ ID NO: 9
282 <211> LENGTH: 1343
283 <212> TYPE: DNA
284 <213> ORGANISM: Homo sapiens
286 <220> FEATURE:
287 <221> NAME/KEY: CDS
289 <222> LOCATION: (291)..(1109)
291 <400> SEQUENCE: 9

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292 gcggccgccc cggcggctcc tggaaccccg gttcgcggcg atgccagcca ccccagcgaa    60
294 gccgccgcag ttcagtgctt ggataatttg aaagtacaat agttggtttc cctgtccacc   120
296 cgccccactt cgcttgccat cacagcacgc ctatcggatg tgagaggaga agtcccgctg   180
298 ctcgggcact gtctatatac gcctaacacc tacatatatt ttaaaaacat taaatataat   240
300 taacaatcaa aagaaagagg agaaaggaag ggaagcatta ctgggttact atg cac      296
301                                                         Met His
302                                                         1    .
304 ttg cga ctg att tct tgg ctt ttt atc att ttg aac ttt atg gaa tac   344
305 Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met Glu Tyr
306         5                   10                  15
307 atc ggc agc caa aac gcc tcc cgg gga agg cgc cag cga aga atg cat   392
308 Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg Met His
309     20                  25                  30
311 cct aac gtt agt caa ggc tgc caa gga ggc tgt gca aca tgc tca gat   440
312 Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys Ser Asp
313 35                  40                  45              50
315 tac aat gga tgt ttg tca tgt aag ccc aga cta ttt ttt gct ctg gaa   488
316 Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala Leu Glu
317             55                  60                  65
319 aga att ggc atg aag cag att gga gta tgt ctc tct tca tgt cca agt   536
320 Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys Pro Ser
321         70                  75                  80
323 gga tat tat gga act cga tat cca gat ata aat aag tgt aca aaa tgc   584
324 Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr Lys Cys
325         85                  90                  95
327 aaa gct gac tgt gat acc tgt ttc aac aaa aat ttc tgc aca aaa tgt   632
328 Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe Cys Thr Lys Cys
329     100                 105                 110
331 aaa agt gga ttt tac tta cac ctt gga aag tgc ctt gac aat tgc cca   680
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332 Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu Asp Asn Cys Pro
333 115             120             125             130
335 gaa ggg ttg gaa gcc aac aac cat act atg gag tgt gtc agt att gtg      728
336 Glu Gly Leu Glu Ala Asn Asn His Thr Met Glu Cys Val Ser Ile Val
337             135             140             145
339 cac tgt gag gtc agt gaa tgg aat cct tgg agt cca tgc acg aag aag      776
340 His Cys Glu Val Ser Glu Trp Asn Pro Trp Ser Pro Cys Thr Lys Lys
341             150             155             160
343 gga aaa aca tgt ggc ttc aaa aga ggg act gaa aca cgg gtc cga gaa      824
344 Gly Lys Thr Cys Gly Phe Lys Arg Gly Thr Glu Thr Arg Val Arg Glu
345             165             170             175
347 ata ata cag cat cct tca gca aag ggt aac cta tgt ccc cca aca aat      872
348 Ile Ile Gln His Pro Ser Ala Lys Gly Asn Leu Cys Pro Pro Thr Asn
349         180             185             190
351 gag aca aga aag tgt aca gtg caa agg aag aag tgt cag aag gga gaa      920
352 Glu Thr Arg Lys Cys Thr Val Gln Arg Lys Lys Cys Gln Lys Gly Glu
353 195             200             205             210
355 cga gga aaa aaa gga agg gag agg aaa aga aaa aaa cct aat aaa gga      968
356 Arg Gly Lys Lys Gly Arg Glu Arg Lys Arg Lys Lys Pro Asn Lys Gly
357             215             220             225
359 gaa agt aaa gaa gca ata cct gac agc aaa agt ctg gaa tcc agc aaa      1016
360 Glu Ser Lys Glu Ala Ile Pro Asp Ser Lys Ser Leu Glu Ser Ser Lys
361             230             235             240
363 gaa atc cca gag caa cga gaa aac aaa cag cag cag aag aag cga aaa      1064
364 Glu Ile Pro Glu Gln Arg Glu Asn Lys Gln Gln Gln Lys Lys Arg Lys
365         245             250             255
368 gtc caa gat aaa cag aaa tcg gta tca gtc agc act gta cac tag       1109
369 Val Gln Asp Lys Gln Lys Ser Val Ser Val Ser Thr Val His
370         260             265             270
372 agggttccat gagattattg tagactcatg atgctgctat ctcaaccaga tgcccaggac   1169
374 aggtgctcta gccattagga ccacaaatgg acatgtcagt tattgctctg tctaaacaac   1229
376 attcccagta gttgctatat tcttcataca agcatagtta acaacaaaga gccaaaagat   1289
378 caaagaaggg atactttcag atggttgtct tgtgtgcttc tctgcatttt taaa          1343
381 <210> SEQ ID NO: 10
382 <211> LENGTH: 272
383 <212> TYPE: PRT
384 <213> ORGANISM: Homo sapiens
387 <400> SEQUENCE: 10
389 Met His Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met
390 1               5               10              15
393 Glu Tyr Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg
394             20              25              30
397 Met His Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys
398         35              40              45
401 Ser Asp Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala
402         50              55              60
405 Leu Glu Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys
406 65              70              75              80
409 Pro Ser Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/22/2002
PATENT APPLICATION: US/09/894,912A   TIME: 11:29:06

Input Set : **A:\37260ARevseq.txt**
Output Set: **N:\CRF3\05222002\I894912A.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 3,28,49,52,53,56,57,60,69,475
Seq#:4; N Pos. 7,8,9,10,14,21
Seq#:5; N Pos. 8,9,10,11,33,36,38,41,43
Seq#:7; N Pos. 390
Seq#:31; N Pos. 2367

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/894,912A

DATE: 05/22/2002
TIME: 11:29:06

Input Set : **A:\37260ARevseq.txt**
Output Set: **N:\CRF3\05222002\I894912A.raw**

```
L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:60
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:420
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360
L:1205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:2307
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